

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**APPLICANT:** Karen M. **BRAUN**                      **GROUP:** 2625  
**APPLICATION:** 10/670,902                      **EXAMINER:** P. Dhingra  
**FILED:** September 25, 2003                      **CONFIRMATION:** 6024  
**FOR: A METHOD FOR IMPROVED PRINTER CHARACTERIZATION**

**Commissioner for Patents**  
**PO Box 1450**  
**Alexandria, Virginia 22313-1450**

**REQUEST FOR PRE-APPEAL BRIEF REVIEW**

The Applicant requests a Pre-Appeal Brief Review of the Final Office Action, dated December 31, 2007, issued in connection with the above-identified application. No amendments are being filed with this Pre-Appeal Brief Review Request.

This Pre-Appeal Brief Review Request is being filed with a Notice of Appeal.

The Pre-Appeal Brief Review is requested for the reason(s) stated on the attached sheet(s).

Respectfully submitted,



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**Arguments to be Considered by Pre-Appeal Brief Conference Panel**

**Rejection under 35 U.S.C. §102(a)&(e)**

Claims 1 and 7-16 have been rejected under 35 U.S.C. §102(a)&(e) as being anticipated by Newman et al. (Published US Patent Application 2003/0020727). This rejection under 35 U.S.C. §102(a)&(e) is respectfully traversed.

In formulating the rejection under 35 U.S.C. §102(a)&(e), the Examiner alleges that Newman et al. discloses producing a target consisting of pairs of metamers, where each pair matches for one illuminant and mismatches for others (Figures 4 and 6 and paragraphs [0045]-[0059], [0063], [0064], and [0067] of Newman et al.); viewing the target under the illumination for which characterization is desired (Figures 4 and 6 and paragraphs [0002], [0010], [0018], [0039], [0040], and [0045]-[0067] of Newman et al.); selecting a best match from the metamer pairs, which estimates the viewing illumination (Figures 4 and 6 and paragraphs [0011]-[0018] and [0045]-[0067] of Newman et al.); entering an indicator of the estimated viewing illumination (paragraph [0072] of Newman et al.); and adjusting the characterization data to correspond to the estimated viewing illumination (paragraphs [0065]-[0072] of Newman et al.). Based upon these allegations, the Examiner concludes that Newman et al. anticipates the presently claimed invention. These allegations and conclusion are respectfully traversed.

As set forth above, independent claim 1 recites a method for improving printer characterization to more accurately reproduce desired colors on a destination printing device given the ambient illumination at the location where the printer's output is intended to be viewed. The method produces a target consisting of pairs of metamers, where each pair matches for one illuminant and mismatches for others; views the target under the illumination for which characterization is desired; selects a best metamer pair match from the metamer pairs, which estimates the viewing illumination; enters an indicator of the estimated viewing illumination; and adjusts the characterization data to correspond to the estimated viewing illumination.

In contrast, Newman et al. illustrates, in Figures 4 and 6, the identification of the color space at different points along the image processing pipeline. More specifically, Newman et al. illustrates, in Figures 4 and 6, that the first color space is a device dependent color space. The second color space, as illustrated in Figures 4 and 6, is a

viewing condition dependent color space, followed by a perceptual color space. The next color space, as illustrated in Figures 4 and 6, is a viewing condition dependent color space, followed by a device dependent color space.

In other words, Newman et al. illustrates, in Figures 4 and 6, the type or identification of the color space, not the action of viewing the target under the illumination for which characterization is desired and utilizing this viewing illumination to select one of the metameric pairs, as set forth by independent claim 1.

Thus, Newman et al. fails to illustrate, in Figures 4 and 6, the viewing of the target under the illumination for which characterization is desired and utilizing this viewing illumination to select one of the metameric pairs.

Moreover, the Examiner cites paragraphs [0002], [0010], [0018], [0039], [0040], and [0045]-[0067] of Newman et al. to support the notion that Newman et al. teaches the viewing of the target under the illumination for which characterization is desired and utilizing this viewing illumination to select one of the metameric pairs.

Paragraph [0002] of Newman et al. states, "The present invention relates to color management systems in which metamerism is reduced when a destination image (typically, a color printout) is viewed under different viewing conditions (such as different illuminants or different surrounds)." This passage of Newman et al. fails to teach the viewing of the target under the illumination for which characterization is desired and utilizing this viewing illumination to select one of the metameric pairs.

Paragraph [0010] of Newman et al. states, "It is an object of the invention to reduce the effects of metamerism even when a destination image is viewed under multiple different viewing conditions such as different illuminants." This passage of Newman et al. fails to teach the viewing of the target under the illumination for which characterization is desired and utilizing this viewing illumination to select one of the metameric pairs.

Paragraph [0018] of Newman et al. states, "In a preferred implementation of this aspect of the invention, a user interface is provided so as to permit user selection of viewing conditions in which the image is expected to be viewed. Based on user selection, weights are assigned to each different viewing condition in the regression analysis, so as to specify the meaning of "best" when a best fit is performed." This passage of Newman et al. fails to the viewing of the target under the illumination for

which characterization is desired and utilizing this viewing illumination to select one of the metameric pairs.

Paragraphs [0039] & [0040] of Newman et al. state:

Printer 50 is representative of a color output device whose gamut and spectral measurements and reflectances are measured in order to apply regression analysis to obtain a single best fit color value in output device coordinates for the plural different target color values in viewing condition dependent space corresponding to multiple different viewing conditions. Such a printer forms color images on a recording medium such as paper or transparencies or the like. The invention may be practiced with other color output devices (such as a film recorder). In addition, digital color scanner 80 is provided for scanning documents and images into computing equipment 40. Of course, computing equipment 40 may acquire document and image data from other sources such as a digital camera or a digital video camera or from a local area network or the Internet via network interface bus 90.

Spectral reflectances as a function of light wavelength are provided to computing equipment 40, such as by using a spectrofluorimeter to measure reflectance of color patches over a wavelength, a spectrophotometer, or any other method that measures or has access to spectral reflectances. Application programs contained within fixed disk 45, which will be described in more detail with regard to FIGS. 2 through 13, use the data to perform the functions of the invention.

This passage of Newman et al. fails to teach the viewing of the target under the illumination for which characterization is desired and utilizing this viewing illumination to select one of the metameric pairs.

Lastly, paragraphs [0045]-[0067] of Newman et al. also fail to teach the viewing of the target under the illumination for which characterization is desired and utilizing this viewing illumination to select one of the metameric pairs.

In summary, Newman et al. fail to teach **the viewing of the target under the illumination for which characterization is desired.** Moreover, Newman et al. fail to teach utilizing this viewing illumination to select one of the metameric pairs.

As set forth in claim 1, the presently claimed invention views the target under the illumination for which characterization is desired. Furthermore, the presently claimed invention, as set forth in claim 1, selects a best metameric pair match from the metameric pairs, which estimates the viewing illumination.

With respect to the Examiner's rebuttal that Newman et al. teaches that color is managed by a regression process, the regression process of Newman et al. receives

input characterizing the targeted illumination conditions. Based upon the received illumination condition, the process utilizes regression to produce an image that can be viewed under the targeted illumination conditions.

In describing this regression, Newman et al. fails to teach that the target is actually viewed under the illumination for which characterization is desired prior to selecting the metameric pair.

More specifically, Newman et al. teaches viewing an image only **after** the regression analysis is completed. In other words, Newman et al. fails to teach or suggest any observation of the target under the illumination for which characterization is desired so that this observation can be utilized in selecting one of the metameric pairs, as set forth by independent claim 1.

Therefore, contrary to the Examiner's assertion, Newman et al. fails to anticipate viewing the target under the illumination for which characterization is desired and utilizing this viewing of the target under the illumination for which characterization is desired to select one of the metameric pairs, as set forth by independent claim 1.

### **CONCLUSION**

Accordingly, in view of all the reasons set forth above, the Pre-Appeal Conference Panel is respectfully requested to reconsider and withdraw the present rejections. Also, an early indication of allowability is earnestly solicited.

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